

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for mitigating restenosis at a trauma site at which a stent is located within the vasculature comprising:
 - positioning a catheter adjacent the trauma site;
 - positioning a sensor moveable relative to the catheter and the stent, wherein the sensor is not an image recording sensing device;
 - extending the sensor, relative to the catheter and the stent, through a lumen in the catheter and through the stent to a position located outside of the catheter and outside of the stent; and
 - delivering a restenosis mitigating drug to the trauma site through the catheter; wherein the sensor comprises an analyte sensor, physiological parameter sensor, biological parameter sensor, biochemical parameter sensor, or chemical parameter sensor.
2. (Previously Presented) The method of Claim 1, further comprising locating the stent at the trauma site.
3. (Original) The method of Claim 2, wherein at least a portion of the catheter is positioned at an interior portion of the stent.
4. (Original) The method of Claim 1, wherein the restenosis mitigating drug is insulin.
5. (Original) The method of Claim 1, wherein the restenosis mitigating drug is delivered upstream from the trauma site.
6. (Original) The method of Claim 1, wherein the restenosis mitigating drug is dispersed to the trauma site through apertures in the catheter.
7. (Original) The method of Claim 1, wherein the catheter is a balloon catheter.
8. (Original) The method of Claim 7, further comprising disposing the restenosis mitigating drug on a balloon portion of the balloon catheter.

9. (Original) The method of Claim 8, wherein the balloon catheter abuts a wall of the vasculature at the trauma site after the balloon catheter is expanded.
10. (Original) The method of Claim 9, further comprising transferring the restenosis mitigating drug to the trauma site when the balloon catheter abuts the wall of the vasculature.
11. (Original) The method of Claim 9, wherein the restenosis mitigating drug is dispersed to the trauma site through apertures in the balloon catheter.
12. (Previously Presented) The method of Claim 1, further comprising sensing an analyte with the sensor.
13. (Original) The method of Claim 12, wherein the delivery of the restenosis mitigating drug is modified in response to the sensing of the analyte.
14. (Previously Presented) The method of Claim 12, wherein the analyte is glucose.
15. (Original) The method of Claim 1, further comprising adjusting a flow rate of the restenosis mitigating drug.
16. (Original) The method of Claim 6, further comprising adjusting a dispersal pattern of the restenosis mitigating drug.
17. (Original) The method of Claim 1, wherein the catheter is positioned prior to a stent procedure.
18. (Original) The method of Claim 1, wherein the catheter is positioned subsequent to a stent procedure.
19. (Original) The method of Claim 1, wherein the restenosis mitigating drug is nitric oxide.
20. (Original) The method of Claim 1, wherein the restenosis mitigating drug is an antibody.
21. (Original) The method of Claim 1, wherein the restenosis mitigating drug is a steroid.

22. (Original) The method of Claim 1, wherein the restenosis mitigating drug is an interleukin.

23. (Original) The method of Claim 1, wherein the restenosis mitigating drug is a blood thinner.

24.-48. (Cancelled).

49. (Previously Presented) The method of claim 1, wherein the sensor has a sensing element and wherein extending a sensor through a lumen in the catheter and through the stent comprises extending the sensor to a position at which the sensing element is located on one side of and spaced from the stent.

50. (Previously Presented) The method of claim 1, wherein the sensor has a sensing element and wherein the catheter includes an outlet for delivering the restenosis mitigating drug and wherein delivering a restenosis mitigating drug comprises positioning the catheter relative to the stent so that the outlet is located on the opposite side of the stent relative to the side of the stent at which the sensing element is located.

51. (Previously Presented) The method of claim 1, wherein the sensor has a sensing element and wherein the catheter includes an outlet for delivering the restenosis mitigating drug and wherein delivering a restenosis mitigating drug comprises positioning the catheter relative to the stent so that the stent is located between the outlet and the sensing element.

52. (Currently Amended) A method for mitigating restenosis at a site within a vasculature, the method comprising:

positioning a stent at the site;

positioning a catheter adjacent the site;

positioning a sensor moveable relative to the catheter and the stent, wherein the sensor is not an image recording sensing device;

extending the sensor, relative to the catheter and the stent, through the catheter and through the stent to a position located outside of the catheter and outside of the stent, while the stent is at the site; and

delivering infusion medium to the trauma site through the catheter;

wherein the sensor comprises an analyte sensor, physiological parameter sensor, biological parameter sensor, biochemical parameter sensor, or a chemical parameter sensor.

53. (Previously Presented) A method of claim 52, wherein the sensor has a sensing element and wherein the catheter includes an outlet for delivering the infusion medium and wherein delivering infusion medium comprises positioning the catheter relative to the stent so that the stent is located between the outlet and the sensing element.

54. (Previously Presented) The method of claim 52, wherein the sensor has a sensing element and wherein extending a sensor through the catheter and through the stent comprises extending the sensor to a position at which the sensing element is located on one side of and spaced from the stent.

55. (Previously Presented) The method of Claim 51,
wherein the sensor has a lengthwise dimension extending along a first direction, and
wherein positioning the catheter relative to the stent comprises positioning the catheter relative to the stent so that the stent is located between the outlet and the sensing element, relative to the first direction.

56. (Previously Presented) The method of Claim 49,
wherein the stent includes a distal end, and
wherein extending the sensor to a position at which the sensing element is located on one side of and spaced from the stent comprises extending the sensor to a position at which the sensing element is located at the distal end of the stent.

57. (Previously Presented) The method of Claim 56, wherein the stent further includes a proximal end opposite to the distal end of the stent.

58. (Previously Presented) The method of Claim 1, wherein extending the sensor through the lumen in the catheter and through the stent comprises extending the sensor through a proximal end of the stent and a distal end of the stent opposite the proximal end.

59. (Previously Presented) The method of Claim 53,
wherein the sensor has a lengthwise dimension extending along a first direction, and
wherein positioning the catheter relative to the stent comprises positioning the catheter
relative to the stent so that the stent is located between the outlet and the sensing element,
relative to the first direction.

60. (Previously Presented) The method of Claim 54,
wherein the stent includes a distal end, and
wherein extending the sensor to a position at which the sensing element is located on one
side of and spaced from the stent comprises extending the sensor to a position at which the
sensing element is located at the distal end of the stent.

61. (Previously Presented) The method of Claim 60, wherein the stent further includes a
proximal end opposite to the distal end of the stent.

62. (Previously Presented) The method of Claim 52, wherein extending the sensor through
the catheter and through the stent comprises extending the sensor through a proximal end of the
stent and a distal end of the stent opposite the proximal end.

63. (Previously Presented) The method of Claim 1,
wherein blood flows through the vasculature in a direction through a first end of the stent
and then through a second end of the stent opposite the first end of the stent; and
wherein extending the sensor through the lumen in the catheter and through the stent
comprises extending the sensor through the first end of the stent and the second end of the stent
opposite the proximal end.

64. (Previously Presented) The method of Claim 1, wherein extending the sensor through the
lumen in the catheter and through the stent comprises extending the sensor through a proximal
end of the stent and a distal end of the stent through which blood flows out of, the distal end of
the stent opposite the proximal end of the stent.

65. (Previously Presented) The method of Claim 64, wherein extending a sensor through a lumen in the catheter and through the stent to a position located outside of the catheter and outside of the stent comprises extending a sensor through a lumen in the catheter and through the stent to a position located outside of the catheter and outside of the stent such that the sensor is spaced apart from the stent and the sensor is spaced apart from the catheter in the direction in which blood flows out of the stent.

66. (Previously Presented) The method of Claim 1, wherein extending a sensor through a lumen in the catheter and through the stent to a position located outside of the catheter and outside of the stent comprises extending a sensor through a lumen in the catheter and through the stent to a position located outside of the catheter and outside of the stent such that the sensor is spaced apart from the stent.

67. (Previously Presented) The method of Claim 1,
the stent having a generally cylindrical shape, the stent having a longitudinal axis and two opposed ends at opposite ends of the longitudinal axis, each of the two opposed ends being open to a generally hollow interior of the stent;
wherein extending the sensor through the lumen in the catheter and through the stent comprises extending the sensor through one end of the two opposed ends of the stent and out the other end of the two opposed ends of the stent.

68. (Previously Presented) The method of Claim 1, the sensor moveable relative to the catheter and the stent simultaneously.

69. (Previously Presented) The method of Claim 1, wherein the sensor is moveable, in the direction in which blood flows out of the stent, independent of the catheter.

70. (Previously Presented) The method of Claim 1, wherein the sensor comprises a biochemical parameter sensor or a chemical parameter sensor.

71. (Previously Presented) The method of Claim 1, wherein the sensor comprises a device that performs electrochemical measurements.

72. (Previously Presented) The method of Claim 1, wherein the sensor comprises an oxygen sensor.

73. (Previously Presented) The method of Claim 1, wherein the sensor comprises a catalyst or enzyme that reacts to a biological or chemical parameter.